

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 April 2004 (01.04.2004)

PCT

(10) International Publication Number
WO 2004/027724 A3

(51) International Patent Classification⁷: **G08B 17/00**,
17/117, 27/00, A62C 37/36, H01H 39/00, H02H 3/02

(21) International Application Number:
PCT/NO2003/000224

(22) International Filing Date: 30 June 2003 (30.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20023176 28 June 2002 (28.06.2002) NO

(71) Applicant (for all designated States except US): STS
STILLASSERVICE [NO/NO]; Svaneviksveien 37,
N-5063 Bergen (NO).

(72) Inventor; and

(75) Inventor/Applicant (for US only): PAULSEN, Nils
[NO/NO]; Lynghaugen 5, N-5038 Bergen (NO).

(74) Agent: AS BERGEN PATENTKONTOR; P.O. Box
1998, Nordnes, N-5817 Bergen (NO).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

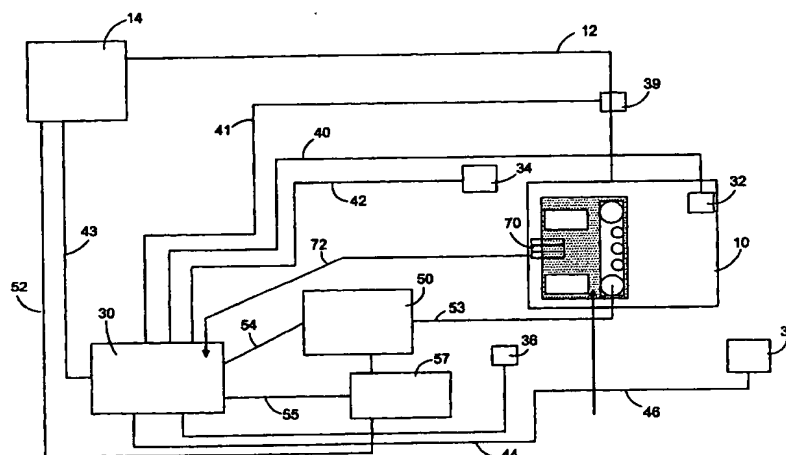
Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
13 May 2004

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: DEVICE FOR SECURITY SYSTEMS FOR OPERATION OF HABITATS ON INSTALLATIONS



(57) Abstract: A device is described for a safety system on an installation in connection with the operation of a habitat (10) in which an object that is carrying out work which results in heat generation such as flames, sparks and the like, is isolated from the surroundings, and where an overpressure of air is set up in the habitat (10) to prevent ingress of flammable gases, and comprising systems for supply of electricity and overpressure air to the equipment inside the habitat, and also an alarm system which can warn of irregularities and the like. The device is characterised in that the safety system comprises a shut-down central (30) to which is connected a number of detectors (32-38) placed in or adjacent to the habitat, and that can register parameters such as gases, temperatures, changes in temperature, and also pressure conditions adjacent to or inside the habitat, and that the shut-down central (30) is arranged to shut down operation of the heat generating equipment when irregularities arise in the operation of the habitat.

WO 2004/027724 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NO 2003/000224

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G08B 17/00, G08B 17/117, G08B 27/00, A62C 37/36, H01H 39/00, H02H 3/02
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: G08B, A22C, H01H, H02H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, PAJ, FULLTEXT, EPOQUE, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 0139222 A2 (MCGILL, JAMES, C.), 31 May 2001 (31.05.2001), figures 3-5, 20-22, claims 24-25, Summary of the invention pages 2-8	1-3
Y	--	4-10
Y	US 6380852 B1 (MICHAEL G. HARTMAN ET AL), 30 April 2002 (30.04.2002), column 2, line 7 - column 3, line 57, figures 1-20, claims 1-23	4-10
A	DE 4241862 A1 (ABB PATENT GMBH), 16 June 1994 (16.06.1994), figures 1-3, claims 1-11	1-10
	--	

☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
18 March 2004

Date of mailing of the international search report
18-03-2004

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. +46 8 666 02 86

Authorized officer
Beata Slusarczyk/Els
Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NO 2003/000224

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 1383104 A (AIR INDUSTRIE), 5 February 1975 (05.02.1975), figure 1, claims 1-8 --	1-10
A	US 4275311 A (UMBERTO AGAZZONE ET AL), 23 June 1981 (23.06.1981), figures 1-3, claims 1-9 --	1-10
A	DK 159167 B (FRANCO MARIA CONTE), 10 Sept 1990 (10.09.1990), figures 1-2, abstract -- -----	1-10

INTERNATIONAL SEARCH REPORT

27/02/2004

International application No.

PCT/NO 2003/000224

WO	0139222	A2	31/05/2001	AU	2050601 A	04/06/2001
US	6380852	B1	30/04/2002	AU	1452001 A	14/05/2001
				EP	1257986 A	20/11/2002
				WO	0133527 A	10/05/2001
DE	4241862	A1	16/06/1994	NONE		
GB	1383104	A	05/02/1975	DE	2224660 A,B	07/12/1972
				FR	2138368 A,B	05/01/1973
				NL	147957 B	15/12/1975
				NL	7203696 A	23/11/1972
				US	RE28394 E	15/04/1975
US	4275311	A	23/06/1981	CA	1131701 A	14/09/1982
				DE	3019611 A	27/11/1980
				ES	491730 A	01/04/1981
				ES	8104669 A	01/07/1981
				FR	2457593 A,B	19/12/1980
				GB	2052186 A,B	21/01/1981
				IT	1118656 B	03/03/1986
				IT	7968093 D	00/00/0000
				JP	1455103 C	25/08/1988
				JP	56000531 A	07/01/1981
				JP	63002017 B	16/01/1988
DK	159167	B	10/09/1990	AR	228973 A	13/05/1983
				AT	15562 T	15/09/1985
				AU	1843388 A	22/09/1988
				AU	8322682 A	11/11/1982
				BR	8202411 A	12/04/1983
				CA	1237505 A	31/05/1988
				DE	3266133 D	00/00/0000
				DK	185582 A	06/11/1982
				EP	0065497 A,B	24/11/1982
				SE	0065497 T3	
				ES	511787 A	16/02/1983
				ES	8304343 A	16/05/1983
				FI	75430 B,C	29/02/1988
				FI	821569 A	06/11/1982
				GR	75842 A	02/08/1984
				IE	52445 B	28/10/1987
				IE	821010 L	05/11/1982
				IL	65497 D	00/00/0000
				IT	1167878 B	20/05/1987
				IT	8109399 D	00/00/0000
				JP	57186160 A	16/11/1982
				MX	151271 A	29/10/1984
				NO	153236 B,C	28/10/1985
				NO	821461 A	08/11/1982
				NZ	200307 A	31/05/1985
				PT	74843 A,B	01/06/1982
				YU	44342 B	30/06/1990
				YU	94582 A	20/03/1985
				ZA	8203039 A	30/03/1983